

AMENDMENTS TO CLAIMS

I claim:

1. **(Original)** A method of treating infectious diseases caused by drug-resistant strains of bacteria in a human or an animal host comprising:
Administration to the area of disease a suitable carrier containing an antibacterial agent obtainable from pepper, or an equivalent in a therapeutically effective concentration.
2. **(Withdrawn)** A method of treating superficial bacterial infections in a human or an animal host comprising:
Administration to the area of disease a suitable carrier containing an antibacterial agent obtainable from pepper, or an equivalent in a therapeutically effective concentration.
3. **(Withdrawn)** A method of treating internal bacterial infections in a human or an animal host comprising:
Administration to the area of disease a suitable carrier containing an antibacterial agent obtainable from pepper, or an equivalent in a therapeutically effective concentration.
4. **(Previously presented)** A method of treating bacterial infections in a human or an animal host comprising:
Administration to the area of disease a suitable carrier containing an antibacterial phytoalexin obtainable from pepper, or an equivalent in a therapeutically effective concentration.
5. **(Previously presented)** A method of treating cellulitis in a human or an animal host comprising:
Administration to the area of disease a suitable carrier containing an antibacterial agent obtainable from pepper, or an equivalent in a therapeutically effective concentration.
6. **(Previously amended, one time)** The method of claim 5, wherein the disease [includes] is necrotizing fasciitis (flesh eating disease).
7. **(New)** A method of treating infectious diseases caused by *Staphylococcus* bacteria in a human or an animal host comprising:

Administration to the area of disease a suitable carrier containing an antibacterial agent obtainable from solvent extraction of a component of a pepper plant, or an equivalent in a therapeutically effective concentration.

8. (New) The method of claim 7, wherein the bacteria is *Staphylococcus aureus*.
9. (New) The method of claim 7, wherein the *Staphylococcus* bacteria is drug resistant.
10. (New) The method of claim 7, wherein the infectious disease is classified as a superficial infection.
11. (New) The method of claim 7, wherein the infectious disease is classified as internal or systemic infection.
12. (New) The method of claim 7, wherein the disease is cellulitis.
13. (New) The method of claim 7, wherein said administration is topical.
14. (New) The method of claim 7, wherein said administration is internal or systemic.
15. (New) The method of claim 7, wherein said solvent is alcohol.
16. (New) The method of claim 7, wherein said solvent is acetone.
17. (New) The method of claim 7, wherein said pepper is black pepper.
18. (New) The method of claim 7, wherein said pepper is capsicum pepper.
19. (New) The method of claim 7, wherein said pepper is red pepper.
20. (New) The method of claim 7, wherein said pepper is paprika.
21. (New) The method of claim 7, wherein said equivalent is ginger.
22. (New) The method of claim 7, wherein said equivalent is turmeric.

3. TRAVERSE OF REJECTION OF CLAIMS UNDER 35 USC SECTION 112 FIRST PARAGRAPH.

Claims 1 & 4-6 were rejected as not enabling a person skilled in the art to make and use the invention.

This rejection is traversed.

The patent specification is explicit as to specific formulations used in actual case studies.

A person skilled in the art is thereby enabled to both produce, and apply any of the formulations toward the treatment of diseases as specifically described, or to those related.

Beginning with production of a crude extract of pepper; a very simple, quick, and inexpensive procedure, a practitioner is at once well equipped with a remarkably effective medical treatment that is broad-spectrum in nature. From there, a practitioner has the further option of isolation or refinement of chemical components of the extract in order to optimize use toward more specific conditions, if so desired.

4. TRAVERSE OF REJECTION OF CLAIMS UNDER 35 USC SECTION 112 SECOND PARAGRAPH.

Claim 6 was rejected for failing to particularly point out, and distinctly claim the subject matter which applicant regards as the invention with use of the term "includes" which renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

This rejection is avoided by amendment of the claim.

Claim 6 was amended by replacement of the word "includes" with "is".

Therefore this rejection should be withdrawn.

5. TRAVERSE OF REJECTION OF CLAIMS 1 & 4 UNDER 35 USC SECTION 102

Claims 1 and 4 were rejected as being anticipated by Yamaguchi et. al. who

taught that piperine, an extract of black pepper showed activity against 2 strains of bacteria *Pseudomonas aeruginosa* and *Alcaligenes F2518*.
This rejection is traversed.

Alcaligenes F2518 is not a pathogenic strain of bacteria, and thus does not apply to medical treatment of disease.

Therefore this rejection should be withdrawn.

Pseudomonas aeruginosa is only occasionally pathogenic to man and animals. The strain tested by Yamaguchi et. al. appears to be ordinary, and not associated with antibiotic drug resistance as in claim 1.

Claim 1 is distinct from this reference, in that it targets antibiotic drug-resistant strains of bacteria.

Therefore this rejection should be withdrawn.

Neither do Dorman et. al., make suggestion to use volatile oils of black pepper against antibiotic drug-resistant strains of bacteria.

The claim 4 “phytoalexins” are distinct from piperine and volatile oils of black pepper found in the cited references.

Therefore this rejection should also be withdrawn.

The invention as claimed is therefore novel, as the cited references fail to identify all elements of the invention as claimed, and should be withdrawn.

6. TRAVERSE OF REJECTION OF CLAIMS 5 & 6 UNDER 35 USC SECTION 103(a).

Claims 5 & 6 were rejected on Examiner assertion that one skilled in the art (in view of Yamaguchi et. al., Dorman et. al. cited references) would have assumed that the administration of piperine or volatile oils of black pepper would be effective to treat cellulites infection commonly caused by staph, strep, and other bacteria.

This rejection is traversed.

The cited references show *in vitro* screens of bacteria vs. piperine or volatile oils of black pepper.

Those skilled in the art also recognize that an *in vitro* display of antimicrobial activity, though evidential, is not in itself a certainty that the compound would function effectively as a medical treatment. If this were true, a mere soap and water washing of an infected area resulting in the killing a number of bacteria would assure rapid cure. Effective treatment of infectious disease is far more complex than simply killing a portion of the pathogenic bacteria at the site of infection.

Many thousands of compounds have shown antibiotic activity *in vitro*, yet effective antibiotic drugs are relatively few in number.

A medical treatment for cellulitis, derived from pepper is not suggested in these references, or in the prior art as a whole.

In particular with a disorder such as cellulitis, which effects deeper levels of tissue below skin level, and involves issues regarding drug delivery and bio-availability ect. in order to reach site of infection. The present invention addresses these issues of delivery to the site of infection in addition to direct biocidal effect.

The above factors are disclosed in the present invention, and not found among the cited references.

This rejection as to obviousness is not proper and should be withdrawn.

Nothing further at this time.

Respectfully,

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Applicant